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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/336,921 06/21/99 KIANG

R KIANG1-2-1

EXAMINER

WM02/0815

INTELLECTUAL PROPERTY DOCKET ADMINISTRAT  
- OR GIBBONS DEL DEO DOLAN GRIFFINGER &  
VECCHIONE ONE RIVERFRONT PLAZA  
NEWARK NJ 07105-5497

GANTT, A  
ART UNIT

PAPER NUMBER

2684  
DATE MAILED:

08/15/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/336,921**

Applicant(s)  
**Roger T. Kiang**

Examiner  
**Alan Gantt**

Art Unit  
**2684**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jun 21, 1999
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 15-17, 19-21 is/are rejected.
- 7) ☒ Claim(s) 10-12, 14, 18 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 U.S.C. § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-9, 13, 15-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isaksson, in view of Arinell.

Regarding claims 1-4, 6, 7, 13, 15-17, and 19-21, discloses a method whereby a cellular network's broadcast control channel allocation lists are modified so that the mobile terminals in the network can measure downlink interference on predetermined broadcast control channel frequencies. These measurements can be made in all cells where the mobile terminals are located and then reported back to the base station (col. 3, lines 40-52). There is a base station system containing base station controllers serving the remote mobile terminals (stations). Each mobile station is measuring the signal strengths of the BCCH frequencies. These measurements provide input for an adaptive algorithm to assign new cell frequencies in such a way as to minimize interference (col. 4, lines 1-34). Isaksson allows for the computations to occur at the MSC as the output from the controllers are combined at the MSC (Figure 2) Isaksson is affirmative in

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stating that the mobiles report signal strength back to the network on a regular basis [like every Slow Associate Control Channel period] (col. 4, line 67 to col. 5, line 4), however, the reference does not say with certainty that the reporting is done without instructions from the controller.

Arinell discloses a method and an arrangement for terminal-oriented performance monitoring in a telecommunication network where information such as grade of service, information on error conditions, and information on the quality of the transmission channel is collected by the subscriber terminal and transferred to the base station or MSC. Arinell is relied upon because it teaches information related to the network that is reported back to the network without being instructed by the base station controller. With Arinell, the transfer between the mobile station and the network is initiated automatically by the mobile station or by command from the operations and maintenance system at the base station (col.3, lines 43-49).

Isaksson and Arinell are combinable because they share a common endeavor, namely, wireless networks that utilize information gathering at the mobile stations inputted to the network to improve network operations. At the time of the applicant's invention, it would have obvious to modify Isaksson to utilize a mobile station capable of sending its gathered information back to the base station controller without prompting by the controller as done by Arinell because the network will be alerted to problems as they happen instead of when the network decides it will check on the conditions.

Regarding claim 5, Isaksson utilizes the mobile station to measure BCCH allocation lists which can be thought of as pilot signals since they are transmitted at fixed power levels.

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Regarding claims 8 and 9, Isaksson speaks of the mobile reporting the data to the controller at every Slow Associate Control Channel period which should be periodic. Arinell may report to the controller upon each occurrence which is a function of the rate of arrival of data.

*Allowable Subject Matter*

3. Claims 10-12, 14 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 10, the step of reporting measured system data synchronously with the data received at the remote sites via the communication link was neither found, suggested, nor made evident by the prior art.

Regarding claims 11 and 18, the forward link data consisting of data collected at the remote sites, including signal strength measurements, was neither found, suggested, nor made evident by the art.

*Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Sato discloses a mobile station that autonomously detects an abrupt change of the quality of a signal received from a peripheral cell and then immediately starts to search peripheral cells.

Shull discloses received signal strength determination methods and systems.

Any inquiry concerning this communication from the examiner should be directed to Alan Gantt at telephone number (703) 305-0077. The Examiner can normally be reached between 8:30 a.m. and 5:00 p.m. EDT. The group FAX number is (703) 872-9314.

Any inquiry of a general nature or relating to the status of the application should be directed to the group receptionist at telephone number (703) 305-4700.

*Alan T. Gantt*  
Alan T. Gantt

August 10, 2001

*Daniel Hunter*  
**DANIEL HUNTER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**